



RLA270A

...designed for perfect signals



1+1 redundant L-Band Line Amplifier (variable gain 0 to 27dB)

The RLA270A represents a 1+1 redundant L-Band line amplifier (950 – 2150MHz) featuring variable gain adjustment, slope-equalization, 10MHz external reference and LNB-supply all in a compact 1RU/19" rack mount design.

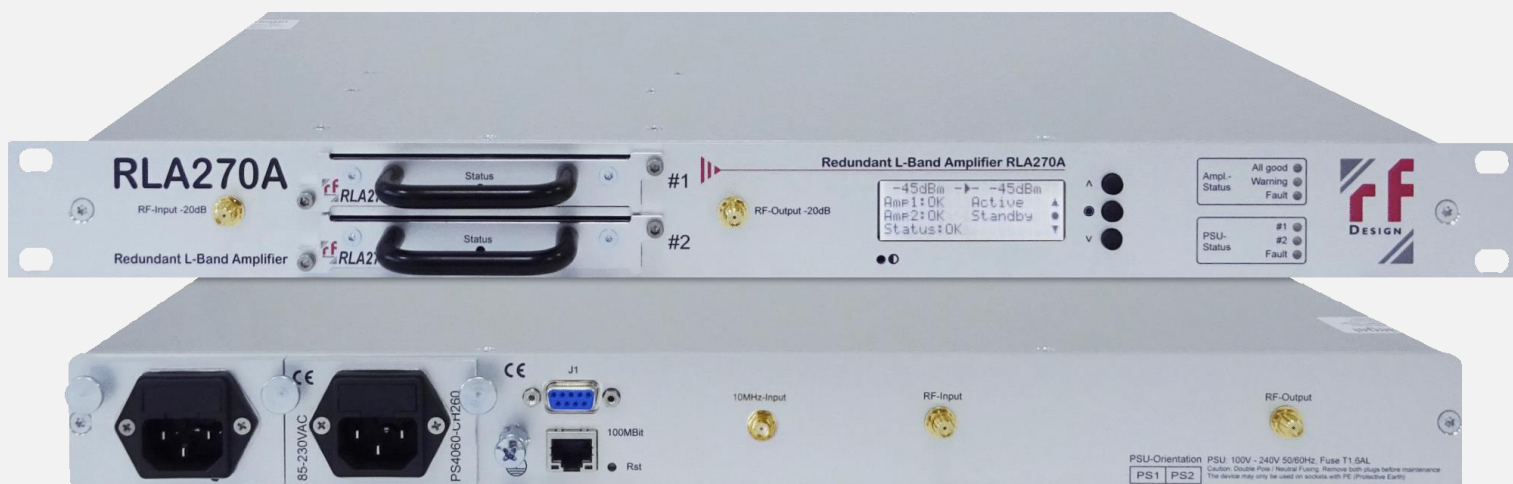
This line amplifier is perfectly suited for RF distribution infrastructures in Teleports, Satellite Earth Stations, as well as Broadcast- and Broadband facilities wherever accurate RF power, highest stability and availability is necessary.

The RLA270A is equipped with two high dynamic 1+1 redundant operating amplifier modules (hot-standby) each providing variable gain so to achieve best performance within the network.

The redundancy switching between the two amplifier modules is done nearly interruption free within a switchover time of less than 5ms.

The unit features adjustable gain (MGC/ AGC), slope equalization, RF power monitoring, 10MHz reference port, switchable LNB-supply and 1:1 dual redundant power supply. The RLA270A has a front panel LC-Display/keypads for user-friendly local configuration and status LED's indicating amplifier and power supply status. Remote control and configuration is possible via its rear side Ethernet-Interface (WebGUI, SNMP).

The RLA270A is available with 50Ohm SMA(f), 50Ohm N(f) or 75Ohm F(f)* connectors (see order information).



FEATURES & BENEFITS

- ▶ Space saving and compact 1RU/19" design
- ▶ 1+1 redundant hot standby operating amplifier-modules
- ▶ Less than 5ms switchover between amplifier 1 & 2
- ▶ Internal RF switch module with latching type relays
- ▶ Variable gain adjust 0 to 27dB, 1dB steps (MGC/AGC)
- ▶ Supports slope equalization 0 to 7dB, 1dB steps
- ▶ Front-side monitoring port input and output (-20dB)
- ▶ RF-power monitoring (Input/Output) for both amplifier modules
- ▶ Threshold alarm function and switchable output limiter
- ▶ 10MHz external reference input, rear side 50Ohm SMA(f)

- ▶ Switchable LNB-power supply (13/18V, 22kHz, 400mA)
- ▶ LNB current monitoring (400mA) with alarm shut-off
- ▶ 1:1 redundant power supply (hot swappable) / Optionally 48V DC
- ▶ Local access & configuration via front panel LC-Display / keypads
- ▶ Front panel status LED's indicating amplifier & power supply status
- ▶ Remote configuration via Ethernet-Interface (WebGUI, SNMP) and serial RS232, RS485



TECHNICAL SPECIFICATIONS

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| Dimensions: | 1RU/19" rack mount, weight: approx. 7kgs. |
| Power Supply: | 90 – 264V, 50/60Hz, 1+1 redundant (hot-swappable) |
| Power Consumption: | <10W |
| Frequency Range: | 950 – 2150MHz (L-Band) |
| Input/Output Connectors: | 50Ohm SMA(f), 50Ohm N(f), or 75Ohm F(f)* |
| 10MHz Reference External Input: | 50Ohm SMA(f), rear side |
| Input Return Loss: | 15dB min. |
| Frequency Response: | ±0,5dB typ., ± 1,0dB max. (50Ohm SMA) ± 1,5dB max. (75Ohm F)* |
| Output Return Loss: | 14dB min. |
| Variable Gain Control: | 0 to 27dB (± 1,0dB), 1dB steps (MGC/AGC) |
| Gain Accuracy: | ±0,5dB typ., ± 1,0dB max |
| Slope Equalization: | 0 to 7dB, 1dB steps |
| Max. Input Level: | +3dBm (no damage) |
| Max. RF Output Power: | +23dBm |
| Noise Figure: | <6dB @ full gain |
| IMA3 @ +17dBm: | < -40dBc |
| 1dB Compression Point: | +20dBm @ full gain |
| Monitoring Port: | -20dB, 50Ohm SMA(f), front-side, input and output |
| Output Limiter: | Adjustable -30dBm to +17dBm |
| Threshold Alarm Function: | Adjustable -40dBm to +10dBm |
| AGC Function: | Adjustable -40dBm to +10dBm, adjustable Lock-Window, adjustable Integration Time |
| LNB-Supply: | Switchable 13/15/18VDC, 22kHz tone, 400mA |
| Local Configuration: | LC-Display/keypads |
| Remote Configuration: | RJ45 100Mbit Ethernet-Interface (WebGUI, SNMPv2C) and RS232, RS485 |
| Status LED's: | Amplifier & PSU health status monitoring |
| MTBF/MTTR: | >400kHrs at 25°C / 24 hours |
| MTTF Alarm Function: | Power Supply MTTF Monitoring |
| Operating Temperature: | 0°C to 45°C |
| Storage Temperature: | -10°C to 70°C |
| Humidity: | 90%, non-condensing |
| RoHS: | Compliant |

**upon request only*

ORDER INFORMATION

| Type | Type No.: | Short Description | I/O connectors |
|-------------|-----------|-------------------------------------|----------------|
| RLA270A-50S | 9001050 | 1+1 redundant Line Amplifier L-Band | 50Ohm SMA(f) |
| RLA270A-50N | 9001039 | 1+1 redundant Line Amplifier L-Band | 50Ohm N(f) |
| RLA270A-75F | 9001051 | 1+1 redundant Line Amplifier L-Band | 75Ohm F(f)* |

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